

1 1. A system for dispensing a metered volume of heated water from the storage tank
2 to the brew chamber of a single serve beverage brewer, said system comprising:
3 a metering chamber;
4 a supply conduit connecting the storage tank to said metering
5 chamber;
6 a delivery conduit connecting said metering chamber to the brew
7 chamber; and
8 air-activated means for withdrawing heated water from said
9 storage tank into said metering chamber via said supply
10 conduit, and for expelling heated water from said metering
11 chamber via said delivery conduit to said brew chamber.

1 2. The system of claim 1 wherein said air-activated means comprises an air pump
2 having suction and discharge conduits; and valve means operative in one mode for connecting
3 said suction and discharge conduits respectively to said metering cup and to atmosphere to draw
4 heated water from the storage tank via said supply conduit into said metering chamber while
5 preventing water flow through said delivery conduit, and operative in an alternative mode for
6 connecting said suction and discharge conduits respectively to atmosphere and to said metering
7 chamber to expel heated water via said delivery conduit to said brew chamber while preventing
8 water flow through said supply conduit.

1 3. The system of claim 2 wherein said valve means includes first and second valves
2 located respectively in said supply and delivery conduits, a third valve for alternately connecting

- 3 said suction conduit to atmosphere and to said metering chamber, and a fourth valve for
- 4 alternately connecting said discharge conduit to atmosphere and to said metering chamber.

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- 2 4. The system of claim 3 wherein said third and fourth valves are connected to a common conduit leading to said metering chamber.

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- 2 5. The system of claim 4 further comprising barrier means in said common conduit
- 3 for safeguarding said air pump against ingestion of water and water vapor from said metering chamber.